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ABSTRACT

Designing a remediation program to meet students' needs involves finding out what a student knows and needs to know. An online testing program, such as eduTest, may provide the answers. This test is a versatile instrument that offers benchmark tests, grade specific tests, and strand tests in the four content areas for grades K through 8. The results, data, assessment, and feedback are immediate and specific. The use of eduTest online was studied with seven sixth graders who had not passed Virginia's Standards of Learning (SOL) test in grade 5. The results show increased improvement in all areas of reading ability for the students in the remediation program. The test was not a perfect indicator of improvement on the SOL test but it provided a point to gauge progress and set remediation goals. (Author/SLD)



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Using an On-Line Test to Assess Reading Skills and
Predict the Ability to Successfully Pass a Reading SOL Test

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Abstract

Designing a remediation program to meet students' needs involves finding out what a student knows and needs to know. The sooner a teacher can assess a student's strengths and weaknesses, the more quickly he or she can advance the necessary skill areas. An on-line testing program such as eduTest may be the answer. It is a versatile instrument that offers benchmark tests, grade specific tests, and strand tests in the four core content areas, grades K-8. The results, data, assessment and feedback are immediate and specific. Students may take the tests anywhere they have access to the internet; data is compiled according to student passwords. The program is efficient for teachers. The following lists the elements of investigation:

- 1. To what extent does on-line testing practice benefit students preparing for SOL tests?
- 2. To what extent do the scores demonstrate positive results in skill progression?
- 3. Can the eduTest on-line testing instrument be used as an SOL predictor of a student's ability to pass a standardized test, specifically the 5th grade reading test after a year of 6th grade reading remediation?

The results show increased improvement in all areas of reading ability for the students in the remediation program. It is not a perfect indicator of student success on the SOL test, but it serves as point to gauge progress and set remediation goals.



Using an On-Line Test to Assess Reading Skills and
Predict the Ability to Successfully Pass a Reading SOL Test

Thirty years ago David Ausubel, an educational psychologist, said, "If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly". Wlodkowski and Ginsberg wrote that the basic purpose of assessment is to engender competence. In his concluding chapter to Opening Lines, Lee Shulman, President of Carnegie Foundation for the Advancement of Teaching, states that "faculty members are asking serious questions about teaching and learning: How do we know these new technologies are effective in fostering student learning? What does student learning look like, and how do we know it when we see it? What's the difference between the kind of learning that occurs in traditional venues and the kind that occurs in technologically mediated settings?" (1995).

With these questions in mind, I began to teach a reading remediation course to a group of sixth grade students who had not passed the required fifth grade Virginia Reading SOL. These students would have a chance to retake the test at the end of their sixth grade year, after the remediation course. Using the on-line test throughout the course would show me what the students know and what they need to know. We could evaluate their progress and design course work to aid students with weak skill areas. Finally, we could judge the extent to which the scores demonstrate positive results, and compare the results with the actual SOL test that the students would take in May. Could the eduTest on-line testing program be used as a predictor of a student's ability to pass the SOL test?

The assessment program was not designed to limit educational opportunity, but expand it, and the data would develop the ongoing investigation designed to meet students' needs. I



wanted my students to approach their testing situation with the confidence born out of experiencing success on a regular basis, during both in-class curriculum activities and on-line assessment simulations. Most importantly, I wanted to increase their self-efficacy, their feelings of competency and their skill levels; I hoped that they would begin to enjoy reading, as I had as a child and still do today. This was my opportunity to instill a life-long love of literature in these sixth graders, and I would use whatever tools and tricks were available to me.

Early in the course students went to the computer lab and took their first on-line test in order to assess each student's strengths and weaknesses. As a testing instrument eduTest is versatile, offering benchmark tests, grade specific tests, and strand tests in the four core content areas, grades K-8. It allows teachers to schedule tests, or students can take non-scheduled tests at school or at home, if they have access to the internet. All the results, data, and assessment are immediate, and feedback is specific to skills such as inferences, author's purpose, and word meaning. A teacher can view the school's results, class results, and individual student's results. Monitoring progress is also easy. Students today are used to working off monitors and are familiar with keyboarding. Students sit at individual computers in a lab situation, or in a classroom where computers are linked to the internet. There is so much variety in the tests that students are not likely to be able to look on the screens around them. At least at first, the technology aspect of the testing was motivating, but quickly it lost its novel element and other techniques had to be incorporated to keep the students motivated. Used in conjunction with other teaching techniques, I hoped the instrument would help these students become successful readers, aid us in evaluating their progress through the year, and help me to predict their ability to pass the Reading SOL test.



The curriculum in the reading remediation course is not specified, so teachers are able to use their discretion about course content. I implemented a variety of activities especially designed to encourage non-readers or reluctant readers to take a more active role in their reading progress. We read a number of high-interest novels aloud. We used SOL workbooks from grade 5 through grade 8. Structured overviews and graphic organizers were comprehension aids and helped to extend our discussion to higher level thinking skills. By reading aloud we modeled word attack skills and used context clues to help define vocabulary words. Groups of two students designed Power Point presentations about elements of literature, and crossword puzzles that were then used in an eighth grade classroom. We read directions and made baked goods for a bake sale to raise money for iodine research, and learned how to play new games in class, following the game directions.

These students were in remediation class instead of in an activity elective, so it was important to include fun competition and gaming as much as possible. The group went to the library once a week, students were encouraged to read for pleasure at home. One boy read a book to a younger sister every night as his family job, and another girl read to her mother daily. We posted charts with stars, one star for each 100 pages read, to encourage more reading. Students spoke about their reading on a regular basis and were encouraged to read particularly interesting sections aloud. We used children's books in the library to read for details and theme ideas, sharing favorite books with each other and presenting them orally in round robin reading sessions.

Assessment is a complicated process, but by considering educational values, performance as revealed over time, the purpose of the program, and experiences leading to the desired outcome, assessment can foster improvement in course methods and help educators meet their



responsibility to students. The on-going aspect of assessment is easy when students are given frequent opportunity to practice what they are learning. There are some drawbacks to on-line testing. In reading, students must scroll up and down lengthy reading selections to check for answers to questions. Frequently schools have computer labs where scheduling conflicts can cause problems, and network errors and server difficulties can cause technical difficulties.

Unscheduled tests were frequently administered throughout the year; while these were not benchmark tests, they were similar, generated from the eduTest library. The difference was that I was able to answer a student's question or give non-verbal support, which wouldn't be allowed during a benchmark or SOL test. A benchmark test the group took on December 4, 2001, resulted in an average score of 55%. A high passing score is between 71-100%; an average score is 51-70%; a failing score is 0-50%. The class average was 40% the first test and 48% the second test. (The average for all of the remediation classes was 38% on Session 1 and 47% on Session 2.) "Inference questions," including "cause and effect," were low scores for my class both times, while "Author's Purpose" was a low score on session 1, but not 2. Students had strong scores in the areas of "Literary Characteristics" and "Word Meanings" during both test sessions.

Individually, some students did much better and some much worse during the various test situations, depending on the day, their motivation, the noise in the lab, and the extent to which they were willing to try hard. Some tests had shorter stories, which the students appreciated; often the longer, nonfiction readings were hard for them to understand. All of the students had a passing score at least twice, and their scores improved overall each time they took a test. Once a student had successfully completed the 5th Grade Reading/Literature Strand, he or she moved on



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to the 6^{th} Grade Strand. Three out of the seven students were able to pass with a score of 50% or higher on the sixth grade test.

We did build in a reward system for the second benchmark test, an ice cream party: 10%=one scoop; 20%=two scoops...adding up to chocolate syrup and whipped cream for 60% and higher. At the end of the year we had a roller skating party as a reward for all the hard work students had put in during math and reading remediation through the year.

By interviewing the seven students in my remediation class, I was able to assess their view of the process and think about ways to strengthen the remediation program for next year's students. When I asked, "Do you think you passed the reading SOL that you took at the end of this year?" all seven answered "yes." When asked "How do you feel about yourself as a reader now?" one said "the same," while six expressed confidence. When asked about summer reading goals, a student responded, "to read a lot more books than before, and understand the meaning of the book." A benefit gained: "I read faster. I became a stronger reader." When asked, "What parts of remediation were not helpful to you?" three students mentioned eduTest, one very specifically: "The eduTest did not help any, I don't think, because I think it was a waste of time." The students felt that our class interaction was a more positive experience for them. The fact that the eduTests were not easy made them less enjoyable, even though I saw major benefits to using them to collect data about student reading skill. While they were articulating their improvements and how much better they felt about their reading, all seven raised their hands to the question, "How many think that the test worked as good practice for taking the SOL test?"

To what extent was I able to engage these reluctant readers in the reading process? How successful was I in predicting their success on the retake of the SOL test? My enthusiasm, competence and encouragement in the teaching situation went farther to instill trust in the



learning process than any computer program could hope to do. The personal approach kept these students at their computers for drill and practice. But was the eduTest program helpful as we gathered data and designed classroom content to increase skill level? We waited for the results.

Five out of my seven students passed the test, a 71% passing rate. Out of the whole group of 42 remediation students, 40% passed the reading, similar to the two Benchmark test predictors. Seven of the seventeen students who passed were in my class; only two out of the twenty-five who didn't were in my class. Looking back at my students' 2001 reading scores, I can see all of them show significant improvement; the average improvement was 19%, with the low a13% improvement and the high a 34% improvement. Disappointing to me were the two students in my class who did not pass. One student who failed by one point showed a 22% improvement in 6th grade over his fifth grade score. Of the two students who didn't pass, one failed by 1 point, the other by 13 points. I had anticipated all of them passing, since the eduTest predictions showed all had passed during the practice tests. Student # 4 (who failed by 1 point) had taken the eduTest 10 times, and had passed 5 times; her most recent scores were 58%, 54% and 65%. Student #5 (who failed by 13 points) had passed 3 out of the 4 times he took the practice eduTest, with his most recent score a 73%. They both should have passed the SOL test, according to the eduTest prediction assessment.

All of the students may continue to take the eduTest at home, as long as they can access the internet. The students who passed can move up to the 6th and 7th grade tests, while the two who didn't can continue to practice 5th grade material, and then progress to the 6th and 7th grade as scores improve. These students will not be required to take another SOL test until the end of their 8th grade year, but using the program at home will help them maintain their skills. I don't want a reading deficiency to continue to cause problems for any students, and I want the students



who did pass to continue to increase their speed, comprehension and appreciation for reading, instead of stagnating or regressing.

Did the eduTest on-line instrument work as a perfect SOL Reading test predictor? No. It certainly gives us information we can use to design curriculum to meet students' needs, and it helped five out of my seven students successfully pass the standardized test. I hope that all of these students will read with greater confidence and comprehension for the rest of their lives; they all showed verifiable progress. Meeting our responsibility as educators and their needs as students is the goal that remains foremost as we design successful learning environments. An online testing program such as eduTest will help teachers be accountable to skill requirements, but it is not a foolproof assessment instrument.



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